What Is Claimed Is:

1. A distribution information management system having a structure comprising a data carrier attached to an article for storing the information of the article, a distribution information processing module for reading/storing the information from/in the data carrier, and a distribution information management module for managing the information relative to distribution of the article,

the distribution information processing module comprising:

a reading part that reads out the data of the data carrier;

a storing part that stores the information in the data carrier;

a first information verification unit that verifies the information read out from the data carrier;

an information generating unit that processes the information to be stored in the data carrier; and

a first communication part that communicates with the distribution information management module,

the first information verification unit comprising:

a first information verification part that verifies the information read out from the data carrier; and

a first verification key storage part that stores the verification k y used by the first information verification part for verification of the information, and

the information generating unit comprising:

a distribution information generating part that generates the information to be stored in the data carrier;

a signature module that performs signature generating process;

a signature key storage part that stores the signature key information used by the signature module for generating an digital signature;

a signature key information selection part that selects a signature key information stored in the signature key storage part; and

a signature key information acquisition part that acquires the signature key information from the distribution information management module,

the signature module comprising:

a signature part that generates an digital signature for the information generated by the distribution information generating part; and

a first signer private information storage part that stores signer private information used by the signature part for generating a digital signature; and

the distribution information management module comprising:

a second communication part that communicates with the distribution information processing module;

a second information verification unit that processes the information received from the distribution information

processing module; and

a signature key information generating unit that processes the signature key information to be sent to the distribution information processing module;

the second information verification unit comprising:

a second information verification part that verifies the information received from the distribution information processing module; and

a second verification key storage part that stores the verification key used by the second information verification part for verification of the information,

the signature key information generating unit comprising:

a signature key information generating part that generates a signature key information used by the distribution information processing module for generating a distribution information;

a signature key storage part that stores the signature key used by the signature key information generating part for generating signature key information;

a signer private information selection part that selects signer private information used by the signature key information generating part for generating signature key information; and

a second signer private information storage part that stores the signer private information.

2. The distribution information management system

according to claim 1, wherein the signature module is detachable from the distribution information processing module.

3. The distribution information management system according to claim 1, wherein the signature module is tamperproof.

4. The distribution information management system according to claim 1, wherein the information generating unit has a signature key use limit information storage part, the signature key information selection part does not select signature key information used more than a specified number of times for signature.

5. The distribution information management system according to claim 1, wherein the signature key use limit information storage part is disposed in the signature module.

6. The distribution information management system according to claim 1, wherein the distribution information processing module comprises:

an information verification module; and

an information generating module,

the information verification module comprises:

a first reading part that reads the data of the data carrier, and

a first information verification unit that processes the information read out from the data carrier,

the information generating module comprises:

a second reading part that read the data of the data carrier;

a storing part that stores the information in the data carrier; and

an information generating unit that processes the information to be stored in the data carrier.

7. The distribution information management system according to claim 1, wherein

the distribution information management module comprises:

a second information verification module; and

a signature key information generating module, and

the second information verification module comprises:

a distribution information verification unit; and

a second communication part, and

the signature key information generating module comprises:

a signature key generating part; and

a third communication part.

8. The distribution information management system according to claim 1, wherein the verification key stored in the first verification key storage part and the second verification key storage part is common for all the distribution information processing modules and distribution information management modules.

9. The distribution information management system according to claim 1, wherein the first information verification part and the second information verification part perform the

same process.

10. The distribution information management system according to claim 1, wherein the first information verification unit has a first verification key selection part that selects the verification key used by the first information verification part.

11. The distribution information management system according to claim 9, wherein the second information verification unit has a second verification key selecting part that selects the verification key used by the second information verification part.

12. The distribution information management system according to claim 1, wherein the signature key information generating unit has a signature key selection part that selects a signature key.

13 The distribution information management system according to claim 1, wherein the information stored in the data carrier comprises at least a product identifier, a signer identifier, a receiver identifier, and a signature value, and which information is stored as one unit.

14. The distribution information management system according to claim 13, wherein the information stored in the data carrier contains at least a verification key identifier, and which information is stored as one unit.

15. The distribution information management system according to claim 11, wherein the information stored in the data carrier contains at least a distribution information

management module identifier, and which information is stored as one unit.

16. The distribution information management system according to claim 1, wherein the information stored in the data carrier contains at least a product identifier, a signer identifier, and a receiver identifier and which information is stored as one unit, and the information has a signature value separately from the information for unit.

17. The distribution information management system according to claim 1, wherein the information stored in the data carrier contains at least a product identifier, a signer identifier, a receiver identifier, and a verification key identifier and which information is stored as one unit, and the information has a signature value corresponding to the verification key identifier for each verification identifier.

18. A data carrier attached to an article for storing the information of the article that stores:

distribution information of the article generated for each one or one set of transaction in the distribution process of the article; and

at least a part of signature value of at least part of a piece of the distribution information or at least part of each of serial pieces of the distribution information.

19. The data carrier according to claim 18, wherein the distribution information of the article contains at least the identifier of the article, the identifier of th receiver who received the article, and the identifi r of the signer who

gen rates the signature value.

20. A distribution information processing module that reads/stores the information out/in a data carrier attached to an article for storing the information relative to the article and communicates the information with a distribution information management module for managing the information relative to distribution of the article to process the information relative to the article,

the distribution information processing module comprising:

a reading part that reads out the data of the data carrier;

a storing part that stores the information in the data carrier;

a first information verification unit that verifies the information read out from the data carrier;

an information generating unit that processes the information to be stored in the data carrier; and

a first communication part that communicates with the distribution information management module,

the first information verification unit comprising:

a first information verification part that verifies the information read out from the data carrier; and

a first verification key storage part that stores the verification key used by the first information verification part for verification of the information, and

the information generating unit comprising:

a distribution information generating part that generates the information to be stored in the data carrier;

a signature module that performs signature generating process;

a signature key storage part that stores the signature key information used by the signature module for generating a digital signature;

a signature key information selection part that selects signature key information stored in the signature key storage part; and

a signature key information acquisition part that acquires the signature key information from the distribution information management module,

the signature module comprising:

a signature part that generates a digital signature for the information generated by the distribution information generating part; and

a first signer private information storage part that stores signer private information used by the signature part for generating a digital signature.

21. A distribution information management module that reads/stores the information out/in a data carrier attached to an article for storing the information relative to the article and communicates the information with a distribution information processing module for processing the information relative to distribution of the article to manage the information relative to the article,

th distribution information management module comprising:

a communication part that communicates with the distribution information processing module;

an information verification unit that processes the information received from the distribution information processing module; and

a signature key information generating unit that processes the signature key information to be sent to the distribution information processing module,

the information verification unit comprising:

a information verification part that verifies the information received from the distribution information processing module; and

a verification key storage part that stores the verification key used by the information verification part for verification of the information,

the signature key information generating unit comprising:

a signature key information generating part that generates signature key information used by the distribution information processing module for generating distribution information;

a signature key storage part that stores the signature key used by the signature key information generating part for generating signature key information;

a signer private information selecti n part that

selects signer private information used by the signature key information generating part for generating signature key information; and

a signer private information storage part that stores the signer private information.

22. A distribution information processing method by use of a data carrier attached to an article for storing the information relative to the article, a distribution information processing module for reading/storing the information from/in the data carrier, and a distribution information management module for managing the information relates to the distribution of the article, wherein

the distribution information processing method comprises:

a reading step for reading out the data of the data carrier;

a storing for storing the information in the data carrier;

a first information verification step for verifying the information read out from the data carrier;

an information generating step for processing the information to be stored in the data carrier; and

a first communication step for communicating with the distribution information management module,

the first information verification step comprises:

a first information verification sub-step for verifying the information r ad out fr m the data carrier; and

a first verification key storage sub-step for storing the verification key used in the first information verification sub-step for verification of the information, and

the information generating step comprises:

a distribution information generating sub-step for generating the information to be stored in the data carrier,

a signature sub-step for performing signature generating process;

a signature key storage step for storing the signature key information used in the signature sub-step for generating a digital signature;

a signature key information selection step for selecting a signature key information stored in the signature key storage sub-step; and

a signature key information acquisition sub-step for acquiring the signature key information from the distribution information management module,

the signature sub-step comprises:

a signature micro-step for generating a digital signature for the information generated by the distribution information generating module; and

a first signer private information storage micro-step for storing a signer private information used in the signature micro-step for generating a digital signature.

23. A distribution information management method by use of a data carrier attached to an article for storing the information relative to the article, a distribution information

processing module for reading/storing the information from/in the data carrier, and a distribution information management module for managing the information relative to the distribution of the article, wherein

the distribution information management method comprises:

a communication step for communicating with the distribution information processing module;

an information verification step for processing the information received from the distribution information processing module; and

a signature key information generating step for processing the signature key information to be sent to the distribution information processing module,

the information verification step comprises:

an information verification sub-step for verifying the information received from the distribution information processing module; and

a verification key storage sub-step for storing the verification key used in the information verification sub-step for verification of the information,

the signature key information generating step comprises:

a signature key information generating sub-step for generating a signature key information used by the distribution information processing module for generating a distribution inf rmation,

a signature key storage sub-step for storing the signature key used in the signature key information generating sub-step for generating signature key information;

a signer private information selection sub-step for selecting a signer private information used in the signature key information generating sub-step for generating signature key information; and,

a signer private information storage sub-step for storing the signer private information.

24. A computer program product for distribution information processing used for managing the distribution information by use of a data carrier attached to an article for storing the information relative to the article, a distribution information processing module for reading/storing the information from/in the data carrier, and a distribution information management module for managing the information relative to the distribution of the article, wherein

a computer executes a process comprising:

a reading step for reading out the data of the data carrier;

a storing step for storing the information in the data carrier;

a first information verification step for verifying the information read out from the data carrier;

an information generating step for processing the information to be stored in the data carrier; and

a first communication step for communicating with the

distribution information management module,

the first information verification step comprises:

a first information verification sub-step for verifying the information read out from the data carrier; and

a first verification key storage sub-step for storing the verification key used in the first information verification sub-step for verification of the information, and

the information generating step comprises:

a distribution information generating sub-step for generating the information to be stored in the data carrier;

a signature sub-step for performing signature generating process;

a signature key storage step for storing the signature key information used in the signature sub-step for generating a digital signature;

a signature key information selection step for selecting a signature key information stored in the signature key storage sub-step; and

a signature key information acquisition sub-step for acquiring the signature key information from the distribution information management module,

the signature sub-step comprises:

a signature micro-step for generating a digital signature for the information generated by the distribution information generating module; and

a first signer private information storage micro-step for st ring signer private information used in the signature

micro-step for generating a digital signature.

25. A computer program product for distribution information management used for managing the distribution information by use of a data carrier attached to an article for storing the information relative to the article, a distribution information processing module for reading/storing the information from/in the data carrier, and a distribution information management module for managing the information relative to the distribution of the article, wherein

a computer executes a process comprising:

a communication step for communicating with the distribution information processing module;

an information verification step for processing the information received from the distribution information processing module; and

a signature key information generating step for processing the signature key information to be sent to the distribution information processing module,

the information verification step comprises:

an information verification sub-step for verifying the information received from the distribution information processing module; and

a verification key storage sub-step for storing the verification key used in the information verification sub-step for verification of the information,

the signature key information generating step comprises:

a signature key information generating sub-step for generating signature key information used by the distribution information processing module for generating distribution information;

a signature key storage sub-step for storing the signature key used in the signature key information generating sub-step for generating signature key information;

a signer private information selection sub-step for selecting a signer private information used by the signature key information generating part for generating a signature key information; and

a signer private information storage sub-step for storing the signer private information.

26. A distribution information management system having the structure comprising a data carrier attached to an article for storing the information of the article, a distribution information processing module for reading /storing the information from/in the data carrier, and a distribution information management module for managing the information relative to distribution of the article.

the distribution information processing module comprising:

a reading part that reads out the data of the data carrier;

a storing part that stores the information in the data carrier;

a first information verification unit that verifies

the information read out from the data carrier;

an information generating unit that processes the information to be stored in the data carrier; and

a first communication part that communicates with the distribution information management module,

the first information verification unit comprising:

an information verification part that verifies the information read out from the data carrier; and

a verification key storage part that stores the verification key used by the first information verification part for verification of the information, and

the information generating unit comprising:

a distribution information generating part that generates the information to be stored in the data carrier;

a signature module that performs signature generating process;

a signature key storage part that stores the signature key information used by the signature module for generating an digital signature;

a signature key information selection part that selects signature key information stored in the signature key storage part; and

a signature key information acquisition part that acquires the signature key information from the distribution information management module,

the signature module comprising:

a signature part that g nerates a digital signature

for the information generated by the distribution information generating part; and

a first signer private information storage part that stores a signer private information used by the signature part for generating a digital signature, and

the distribution information management module comprising:

a second communication part that communicates with the distribution information processing module; and

a signature key information generating unit that processes the signature key information to be sent to the distribution information processing module,

the signature key information generating unit comprising:

a signature key information generating part that generates signature key information used by the distribution information processing module for generating distribution information;

a signature key storage part that stores the signature key used by the signature key information generating part for generating signature key information;

a signer private information selection part that selects a signer private information used by the signature key information generating part for generating signature key information; and

a second signer private information storage part that stores the signer private information.

27. A distributi n information management system having the structure comprising a data carrier attached to an article for storing the information of the article, a distribution information processing module for reading /storing the information from/in the data carrier, and a distribution information management module for managing the information relative to distribution of the article,

the distribution information processing module comprising;

a storing part that stores the information in the data carrier;

an information generating unit that processes the information to be stored in the data carrier; and

a first communication part that communicates with the distribution information management module, and

the information generating unit comprising:

a distribution information generating part that generates the information to be stored in the data carrier;

a signature module that performs signature generating process;

a signature key storage part that stores the signature key information used by the signature module for generating a digital signature;

a signature key information selection part that elects signature key information stored in the signature key storage part; and

a signature key information acquisition part that

acquires the signature k y information from the distribution information management module,

the signature module comprising:

a signature part that generates a digital signature for the information generated by the distribution information generating part; and

a first signer private information storage part that stores signer private information used by the signature part for generating a digital signature; and

the distribution information management module comprising:

a second communication part that communicates with the distribution information processing module;

an information verification unit that processes the information received from the distribution information processing module; and

a signature key information generating unit that processes the signature key information to be sent to the distribution information processing module;

the information verification unit comprising:

an information verification part that verifies the information received from the distribution information processing module; and

a verification key storage part that stores the verification key used by the information verification part for verification of the information,

the signature k y informati n generating unit

comprising:

a signature key information generating part that generates signature key information used by the distribution information processing module for generating distribution information;

a signature key storage part that stores the signature key used by the signature key information generating part for generating a signature key information,

a signer private information selection part that selects signer private information used by the signature key information generating part for generating signature key information; and

a second signer private information storage part that stores the signer private information.